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PTO/SB/08a (08-03)

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U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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FEB 12 2004

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Application Number	10/688,797
Filing Date	October 17, 2003
First Named Inventor	Singh, et al.
Group Art Unit	160
Examiner Name	Unknown
Attorney Docket Number	AMAT/7729/TCG/EPI/LE
Submission Date	February 10, 2004

Sheet 1 of 9

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
	A1	US-6632279B1	10/14/2003	Ritala, et al.	
	A2	US-6630413B2	10/07/2003	Todd	
	A3	US-6559520B2	05/06/2003	Matsuki, et al.	
	A4	US-6544900B2	04/08/2003	Raaijmakers, et al.	
	A5	US-6534395B2	03/18/2003	Werkhoven, et al.	
	A6	US-6511539B1	01/28/2003	Raaijmakers	
	A7	US-6492283B2	12/10/2002	Raaijmakers, et al.	
	A8	US-6468924B2	10/22/2002	Lee, et al.	
	A9	US-6458718B1	10/01/2002	Todd	
	A10	US-6410463B1	06/25/2002	Matsuki	
	A11	US-6399491B2	06/04/2002	Jeon, et al.	
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	A18	US-6342277B1	01/29/2002	Sherman	

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		Number-Kind Code ² (if known)				
	B1	WO 02/097864 A2	12/05/2002	WIPO		
	B2	WO 02/080244 A2	10/10/2002	WIPO		
	B3	WO 02/065525 A1	08/22/2002	WIPO		
	B4	WO 02/065517 A2	08/22/2002	WIPO		
	B5	WO 02/065516 A2	08/22/2002	WIPO		

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Sheet 2

of 9

Application Number	10/688,797
Filing Date	October 17, 2003
First Named Inventor	Singh, et al.
Group Art Unit	160
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		Number-Kind Code ² (if known)			
	A1	US-6305314B1	10/23/2001	Sneh, et al.	
	A2	US-6287965B1	09/11/2001	Kang, et al.	
	A3	US-6284686B1	09/04/2001	Marlor	
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	A6	US-6232196B1	05/15/2001	Raaijmakers, et al.	
	A7	US-6207487B1	03/27/2001	Kim, et al.	
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		Number-Kind Code ² (if known)				
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Sheet 3

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Application Number 10/688,797

Filing Date October 17, 2003

First Named Inventor Singh, et al.

Group Art Unit 160

Examiner Name Unknown

Attorney Docket Number AMAT/7729/TCG/EPI/LE

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		Number-Kind Code ² (if known)			
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	A2	US-5503875	04/02/1996	Imai, et al.	
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	A16	US-20030129826A1	07/10/2003	Werkhoven, et al.	
	A17	US-20030116804A1	06/26/2003	Visokay, et al.	
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	A19	US-20030089942A1	05/15/2003	Bhattacharyya	

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		Number-Kind Code ² (if known)				
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 4

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Application Number	10/688,797
Filing Date	October 17, 2003
First Named Inventor	Singh, et al.
Group Art Unit	160
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		Number-Kind Code ² (if known)			
	A1	US-20030089308A1	05/15/2003	Raaijmakers	
	A2	US-20030082300A1	05/01/2003	Todd, et al.	
	A3	US-20030072975A1	04/17/2003	Shero, et al.	
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	A8	US-20030022528A1	01/30/2003	Todd	
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	A13	US-20020173113A1	11/21/2002	Todd	
	A14	US-20020172768A1	11/21/2002	Endo, et al.	
	A15	US-20020168868A1	11/14/2002	Todd	
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	A17	US-20020155722A1	10/24/2002	Satta, et al.	
	A18	US-20020127841A1	09/12/2002	Horita, et al.	

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		Number-Kind Code ² (if known)				
	B1	WO 98/20524 A1	05/14/1998	WIPO		
	B2	JP2001189312	05/02/2001	JAPANESE		
	B3	JP2001111000	12/26/2002	JAPANESE		
	B4	JP63062313 (Abstract Only)	03/18/1988	JAPANESE		
	B5	JP62171999	07/28/1987	JAPANESE		

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	A1	US-20020098627A1	07/25/2002	Pomareda, et al.	
	A2	US-20020093042A1	07/18/2002	Oh, et al.	
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	A6	US-20020047151A1	04/25/2002	Kim, et al.	
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	A13	US-20010028924A1	10/11/2001	Sherman, et al.	
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	A15	US-20010024387A1	09/27/2001	Raaijmakers, et al.	
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	A17	US-20010000866A1	05/10/2001	Sneh, et al.	
	A18	US-			

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	B1	JP58098917	06/13/1983	JAPANESE		
	B2	JP07300649 A	11/14/1995	JAPANESE		
	B3	JP6-196809	07/15/1994	JAPANESE		
	B4	JP5-251339	09/26/1993	JAPANESE		
	B5	JP5102189	04/23/1993	JAPANESE		

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	A9	US-			
	A10	US-			
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	A15	US-			
	A16	US-			
	A17	US-			
	A18	US-			

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 7

of 9

Application Number

10/688,797

Filing Date

October 17, 2003

First Named Inventor

Singh, et al.

Group Art Unit

160

Examiner Name

Unknown

Attorney Docket Number

AMAT/7729/TCG/EPI/LE

Submission Date

February 10, 2004

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
	A1	US-			
	A2	US-			
	A3	US-			
	A4	US-			
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	A6	US-			
	A7	US-			
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	A13	US-			
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	A15	US-			
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	A17	US-			
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FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ³
		Number-Kind Code ² (if known)				
	B1	EP 1 150 345 A2	10/31/2001	EUROPEAN		
	B2					
	B3					
	B4					
	B5					

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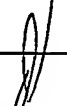
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Sheet 8

of 9

Application Number	10/688,797
Filing Date	October 17, 2003
First Named Inventor	Singh, et al.
Group Art Unit	160
Examiner Name	Unknown
Attorney Docket Number	AMAT/7729/TCG/EPI/LE
Submission Date	February 10, 2004

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
	C1	Argarwal, <i>et al.</i> "Challenges in Integrating the High-K Gate Dielectric Film to the Conventional CMOS Process Flow," Mat. Sec. Soc. Sump. Proc. Vol. 670 (2001)	
	C2	Bedair, "Atomic Layer Epitaxy Deposition Processes," J. Vac. Sci. Technol. B., Vol. 12, No. 1, Jan/Feb 1994	
	C3	Choi, <i>et al.</i> "The Effect of Annealing on Resistivity of Low Pressure Chemical Vapor Deposited Titanium Diboride," J. Appl. Phys. 69(11), 1 June 1991	
	C4	Choi, <i>et al.</i> "Stability of TiB ₂ as a Diffusion Barrier on Silicon," J. Electrochem. Soc., Vol. 138, No. 10, October 1991	
	C5	Derbyshire, "Applications of Integrated Processing," Solid State Technology, December 1994	
	C6	Elers, <i>et al.</i> "NbCl ₅ as a Precursor in Atomic Layer Epitaxy," Applied Surface Science 82/83 (1994) 468-474	
	C7	George, <i>et al.</i> , "Surface Chemistry for Atomic Layer Growth," J. Phys. Chem. 1996, 100, 13121-13131	
	C8	Hwang, <i>et al.</i> "Nanometer-Size α -PbO ₂ -type TiO ₂ in Garnet: A Thermobarometer for Ultrahigh-Pressure Metamorphism," Science Vo. 288 (14 Apr 2000)	
	C9	Jeong, <i>et al.</i> "Plasma-assisted Atomic Layer Growth of High-Quality Aluminum Oxide Thin Films," Jpn. J. Appl. Phys. 1, Regul. Pap. Short Notes, Vol. 40, No. 1, Jan 2001	
	C10	Jeong, <i>et al.</i> "Growth and Characterization of Aluminum Oxide Al ₂ O ₃ Thin Films by Plasma-assisted Atomic Layer Controlled Deposition," J. Korean Inst. Met. Mater., Vol. 38, No. 10, Oct. 2000	
	C11	Imai, <i>et al.</i> Jpn. J. Appl. Phys., 30 (1991) 3646.	

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Date Considered 

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 9

of 9

Application Number

10/688,797

Filing Date

October 17, 2003

First Named Inventor

Singh, et al.

Group Art Unit

160

Examiner Name

Unknown

Attorney Docket Number

AMAT/7729/TCG/EPI/LE

Submission Date

February 10, 2004

NON PATENT LITERATURE DOCUMENTS

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	C12	Lee, <i>et al.</i> "Cyclic Technique for the Enhancement of Highly Oriented Diamond Film Growth," Thin Solid Films 303 (1997) 264-269	
	C13	Lubben, <i>et al.</i> "Mechanisms and kinetics of Si atomic-layer epitaxy on Si(001)2X1 from Si ₂ H ₆ ," J. Vac. Sci. Technol. A 9 (6), Nov/Dec 1991, 3003-3011.	
	C14	Min, <i>et al.</i> "Metal-organic Atomic-layer Deposition of Titanium-silicon-nitride Films," Applied Physics Letters, Vol. 75, No. 11 (11 Sep 1999)	
	C15	Min, <i>et al.</i> "Chemical Vapor Deposition of Ti-Si-N Films with Alternating Source Supply," Mat. Res. Soc. Symp. Proc. Vol. 564 (1999)	
	C16	Paranjpe, <i>et al.</i> "Atomic Layer Deposition of AlO _x for Thin Film Head Gap Applications," J. Electrochem. Soc., Vol. 148, No. 9, Sep. 2001	
	C17	Ritala, <i>et al.</i> "Atomic Layer Deposition of Oxide Thin Films with Metal Alkoxides as Oxygen Sources," Science Vol. 288 14 Apr 2000	
	C18	Suda, <i>et al.</i> "Adsorption and thermal dissociation of disilane (Si ₂ H ₆) on Si(100)2X1," J. Vac. Sci. Technol. A8 (1), Jan/Feb 1990, 61-67.	

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Date Considered

11/21/06

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Sheet

1

of

1

Application Number

10/688,797

Filing Date

October 17, 2003

First Named Inventor

Singh, et al.

Group Art Unit

160

Examiner Name

Unknown

Attorney Docket Number

AMAT/7729/TCG/EPI/LE

Submission Date

March 25, 2004

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
<i>[Signature]</i>	C1	IMAI, <i>et al.</i> , "A Novel Atomic Layer Epitaxy Method of Silicon," Jpn. J. Appl. Phys. Vol. 30, No. 12B, December, 1991, pp. 3646-3651	
	C2		
	C3		
	C4		
	C5		
	C6		
	C7		
	C8		
	C9		
	C10		
	C11		
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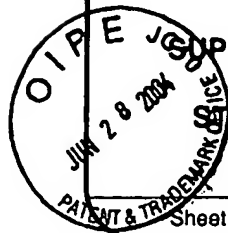
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Sheet 1

of 1

Application Number	10/688,797
Filing Date	October 17, 2003
First Named Inventor	Singh, et al.
Group Art Unit	160
Examiner Name	Unknown
Attorney Docket Number	AMAT/7729/TCG/EPI/RKK
Submission Date	June 22, 2004

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
	A1	US-4,690,830	09/01/1987	Dickson, et al.	
	A2	US-4,830,890	05/16/1989	Kanai	
	A3	US-5,604,151	02/18/1997	Goela, et al.	

FOREIGN PATENT DOCUMENTS

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		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				
	B1	EP 0 296 702	04/18/1988	Dow Corning Corporation		
	B2	JP 63234513	09/29/1988	Canon, Inc.		
	B3	JP 01083510 (Abstract Only)	03/29/1989	IBIDEN, CO. LTD.		

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	C1	Moore, Darren L., et al., "Reaction of hydrogen peroxide with organosilanes under chemical vapour deposition conditions", Dalton (2000), (16), 2673-2677, 2000, XP002276265	

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11/21/08

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